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## ENGLISH VERSION: SUBSTANTIATION AND METHODOLOGY FOR ASSESSMENT OF HEALTHY LIFESTYLE FORMATION IN PATIENTS WITH CORONARY HEART DISEASE\*

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Promoting healthy lifestyle (HLS) allowed the developed countries to reduce mortality. World Health Organization (WHO) has developed the "Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013-2020". Its quintessence consists in actualization of the healthy lifestyle issue in each country in order to reduce morbidity and mortality.

Key words: method of assessment, healthy lifestyle, coronary heart disease.

«The world has reached a decisive point in the history of noncommunicable diseases (NCDs) and has an unprecedented opportunity to alter its course. WHO Member States have agreed on a time-bound set of nine voluntary global targets to be attained by 2025»

WHO Director-General Dr Margaret Chan, 2014 [1].

Despite significant scientific achievements of fundamental and clinical medicine of the XXth century, nowadays can be observed as the crisis time for healthcare systems of numerous countries. According to statistics, cardiovascular diseases continue to be the "killer No.1". The incidence and prevalence of obesity, diabetes, metabolic syndrome reach the epidemic levels worldwide. Instead, the scientific data of the XXIst century show once again that modification of lifestyle and reducing risk factors may slow the development of disease, both before and after the onset of clinical symptoms. Developed countries have made progress in this direction: 80 % of deaths from cardiovascular diseases now account for countries with medium and low income. The World Health Organization (WHO) has developed "Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013-2020" to consolidate the positive shifts in the world. It includes nine voluntary global targets: 1) A 25% relative reduction in the risk of premature mortality from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases; 2) At least 10% relative reduction in the harmful use of alcohol, as appropriate, within the national context; 3) A 10% relative reduction in prevalence of insufficient physical activity; 4) A 30% relative reduction in average population intake of salt/sodium; 5) A 30% relative reduction in current prevalence of tobacco use; 6) A 25% relative reduction in the prevalence of raised blood pressure or contain the prevalence of raised blood pressure, according to national circumstances; 7) To halt the rise in diabetes and obesity; 8) At least 50% of people with relevant indications should receive drug therapy and counseling (including glycaemic control) to prevent heart attacks and strokes; 9) An 80% availability of the affordable basic technologies and essential medicines, including generics, required to treat major noncommunicable diseases in both public and private facilities [1, 2, 4, 5]. The quintessence of "Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013-2020" is to consider the actualization of the healthy lifestyle (HLS) as the main way to combat

non-communicable diseases, including Coronary heart disease (CHD).

## Presentation of basic material

The HLS is a comprehensive concept that includes all areas of human life, its socio-cultural space of development and it depends on the genetic and epigenetic factors. In our view, it can be a holistic multidimensional dynamic parameter, the total derivative of man's choice in reflection of daily activities, resulting in the appearance of physical, psychological, and behavioral components of one's health. HLS is one of the main preconditions for the treatment and prevention of CHD. However, scientifically substantiated methodology for its assessment in patients with CHD has not yet been applied. The aim of the research is to develop/adapt methodological approaches to assessing the level of healthy lifestyle formation in these category patients to optimize the treatment and prevention of CHD in patients of Ukraine considering global voluntary targets of "Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013-2020".

We used the method by A.G. Nosov (Department of Education methodology of "Saratov State University named after N.G. Chernyshevsky", Russia, 2014) in order to determine the level of HLS formation [3]. Nosov's Questionnaire «Formation of healthy lifestyle components» underlies this method. The questionnaire is divided into three blocks: 1) block of values and content for determining the need for healthy lifestyle; 2) block of meaningful information for determining the level of knowledge about healthy lifestyle; 3) block of individual activity for determining the implementation abilities and skills of healthy activities. The questions in questionnaire meet internal consistency and have satisfactory reliability: value of the coefficient  $\alpha$  - Cronbach in blocks is 0.71; 0.76; 0.71 respectively (the required level of 0.7 or above). Evaluation of the overall level of formed healthy lifestyle components were performed by counting the number of respondents' scored points. There are nine questions in each block. Each question in the questionnaire enables differentiated responses and is evaluated from 0 to 2 points. The answer is "yes" is 2 points, "do not know, not sure" is 1 point and "no" is 0 points. The maximum number of points is identical in each block and the same is 18 points. Sum of all components is 54 points. You can use the following formula to calculate the

<sup>\*</sup> To cite this English version: Potiazhenko M. M., Nevoitt G. V. Substantiation and methodology for assessment of healthy lifestyle formation in patients with coronary heart disease // Problemy ekologii ta medytsyny. - 2016. - Vol 20, № 1-2. - P. 18–19.

level of formation of a healthy lifestyle component: n % = x\*100/18, n% is the desired percentage of formed components; x is received while adding, multiplied by 100% and divided by 18. It is the maximum possible number of points in the block. To simplify the calculation, results in all questionnaire responses, N (general) can be calculated by the formula N % = X\*100/54, X is typed number of points in all the blocks of the questionnaire multiplied by 100% and divided by 54. It is the maximum possible number of points. Three levels of HLS formation are possible according to the results: objectal and passive (low), objectal and active (medium), and subjective (high). If the patient scored 0-27 (0-50 %) points, this is objectal and passive level with the following criteria: (1) - in the hierarchy of values, health is low after material wealth; the patient's attitude towards their health is of consumer nature, there is no concern for its preservation; healthy lifestyle is rejected, its necessity is not understood; there is no interest in the study and implementation of health containment; (2) - the patient has little understanding of the work of the human body and the factors that affect health; he/she has fragmentary knowledge of the elements that make up a healthy lifestyle and the needs of people; the patients don't know their anthropometric data and characteristics of the nervous system; do not understand the impact on the individual characteristics of the life and health; (3) - the patient does not develop an individual trajectory of developing the healthy lifestyle; - he/she has many bad habits; - he/she does not have planning skills of healthy lifestyle; - he/she has no desire to change their way of life; there are not long-term and short-term goals in life; - he/she has unorganized and poor physical training (1-2 points on a 5 - point scale ) - there is regression. If the patient scored 28-45 (52-74 %) points this is the objectal and active level. The criteria are as follows: (1) health is not at the highest level after wealth; - the patient has a neutral attitude to health; - the patient is occasionally worried about keeping health; - the patient is not aware of the need and systematic development of HLS; the patient has an indifferent attitude to the study and implementation of health containment; (2) - the patient has a partial understanding of the work of the human body and the factors affecting health; - he/she has partial knowledge of the healthy lifestyle elements and human needs; - he/she does not realize the logic of healthy lifestyle; - he/she has partial knowledge of anthropometric data and characteristics of the nervous system; - he/she has a partial understanding of the impact on the individual characteristics of the life and health; (3) - the patient does not develop an individual trajectory of developing healthy lifestyle; - he/she has bad habits and not developed skills of planning in terms of healthy activities; he/she has a weak desire to change their way of life; the patient does not take into account the importance of maintaining vital health purposes; - he/she has no organized secondary physical training (3-4 points) - there is no progress.

If the patient scored 45- 54 (76-100 %) points this is the subjective (high) level. The criteria are as follows: (1)

- the patient's health is in first place in the hierarchy of values; - he/she has a responsible attitude towards their health, he/she cares about maintaining health; - he/she understands the need for a healthy lifestyle, realizes the importance of the study and implementation of health containment; (2) - the patient develops an individual trajectory of becoming healthy lifestyle; - he/she has no bad habits or he/she fights with them; (3) - the patient has developed skills of planning the healthy activities; - he/she desires to optimize their lifestyle; - he/she recognizes the importance of maintaining healthy goals in life; - he/she has clearly organized physical preparation (4-5 points) - there is progress.

The obtained data reflect the stage of the evolutionary process of personal growth in patients with coronary heart disease. It will be the basis for further individual work with them to modify risk factors [2] of cardiovascular diseases. The result is a clear and scientifically sound gradation of condition related to the patient's healthy lifestyle. It is a complete criterion unit of this phenomenon. It includes criteria and indicators of the formation level of healthy lifestyle in patient with CHD.

## Conclusions

Use of this technique adapted to patients with coronary artery disease will allow to: 1) objectify the category of patients to create customized target groups during treatment; 2) extrapolate the results of the objective indicators of patients' psychosomatic condition; 3) develop an individual strategy for comprehensive treatment. 4) Implementation of the method will help to achieve the goals of "Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013-2020".

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Матеріал надійшов до редакції 16.04.2016